MEMORANDUM

DATE: August 31, 2020

TO: Steven Chen – City Engineer
City of Maple Valley

FROM: Spenser Haynie
TENW

SUBJECT: Response to City's Traffic Impact Analysis Review Comments
Maple Valley Logistics (PWE 1810-001)
TENW Project No. 5993

This document provides a response to the City's Traffic Impact Analysis Review Comments dated August 5, 2020 (provided in Attachment A). The TIA Review Comments included ten (10) comments; responses to each of the comments are provided below.

Comment #1 Page 7, Trip Generation for Peak Season: The TIA stated that during peak holiday season, trip generation could be approximately three to five times greater than an average weekday. Due to the larger than expected increase in traffic for a sustained period of 30 to 45 days during the holiday period, a sensitivity test should be performed for all intersection locations that are expected to operate at LOS D or worse under the With Project scenario. The sensitivity test should evaluate intersection operations for a holiday period to understand potential impacts with and without the SE 231st Street extension.

TENW Response:

Traffic generated during the peak season is expected to be 2 to 3 times higher than during the typical non-peak season 11 months of the year. The elements identified in the Transportation Management Plan will address traffic impacts during the peak season; a sensitivity test was not evaluated.

Comment #2 Page 7, Trip Distribution: We have questions about the assumed trip distribution. Is a service area boundary map available to provide to support the trip distribution assumptions? For example, we question the 20% assigned to SR 169 to/from the north, and feel that should likely be lower. Additionally, the amount of trips headed to/from the south would likely be a little higher given the higher number of residential and commercial land uses to the south for which facility is likely to serve. We recommend 35% be assigned to SR 169 to/from the south. With those changes, the general trip distribution patterns would be more similar to the City's travel demand model.

TENW Response:

Comment noted. The trip distribution assumptions in the original TIA were based on review of existing turning movement counts in the project study area. The trip distribution pattern has been modified in the updated TIA based on the comment above and specific information provided by the anticipated tenant which includes distribution of deliveries by zip code. The resulting trip distribution was modified in the updated TIA to reflect 35% to/from the south on SR 169 compared to 25% to/from the south in the original TIA.

Comment #3 *Pages 7 and 8, Trip Assignment: We are concerned about the trip assignment differences between the with and without 231st Street Extension scenarios. With the SE 231st Street Extension in place, we believe that more trips should be assigned to the new street connection that are headed to/from the south. For example, in Figure 4 for intersection #3, there are still 14 trips assumed to make a westbound left from Witte Road. More explanation or analysis should be provided to support the trip assignments with the new SE 231st Street Extension. We suggest that a higher number of project trips be assigned to the new street extension that are headed to/from the south.*

TENW Response:

The trip assignment has been revised in the updated TIA to assign all project-generated trips heading to the south utilizing the new SE 231st Street extension. Note that a portion of the entering trips from the south are expected to still utilize Witte Road and the site driveways on Witte Road, even with the SE 231st Street extension in place, since that is a more direct route for trips entering the site from the south.

Comment #4 *Page 15, Traffic Operations Analysis: Because of the expected LOS deficiencies at the SR 169/Witte Road intersection during the PM peak hour, an AM analysis with and without the SE 231st Street extension should be conducted for that intersection location. We can provide AM traffic counts for use in the analysis. A background growth rate can be applied to the AM counts based on the derived growth rate of the PM peak hour forecast.*

TENW Response:

Comment noted. The updated TIA includes weekday AM peak hour LOS analysis with and without the SE 231st Street extension at the SR 169/Witte Road intersection.

Comment #5 *Page 15, Vehicle Queuing and Progression: A vehicle queuing and signal progression analysis along SR 169 needs to be analyzed and summarized in detail as was documented in our email describing the scope of the traffic study. The analysis should note where queues spillback into adjoining intersections, where queues exceed available storage lengths or block driveways, and how the additional project trips may impact the analysis. This may require the use of SimTraffic to complete the evaluation. The information should summarize vehicle queue lengths, and LOS and delay by approach or critical movement.*

TENW Response:

A detailed queuing and progression analysis was not conducted along SR 169. City adopted LOS standards are based on intersection LOS methodology which are included in the updated TIA.

Comment #6 *Page 16, Sight Distance Assessment: A design speed of 5 MPH over the posted speed limit was used for sight distance analyses. The City's Public Works Road Standards states that design speed should be 10 mph over the posted speed limit for arterials. The sight distance analysis should be updated to reflect the City's adopted standard.*

TENW Response:

City of Maple Valley Road Standards indicate that design speed shall be equal to 10 miles per hour above the current posted speed limit for arterials. Witte Road is a collector and therefore a design speed of 5 MPH over the existing posted speed limit was used.

Comment #7 *Page 17, Entering Sight Distance: The entering sight distance analysis for the access driveways on Witte Road was shown not to meet the City's Entering Sight Distance Standards looking to the west due to the vertical curve. The TIA should be updated to identify mitigation for resolving the sight distance deficiency.*

TENW Response:

Comment noted. The western driveway on Witte Road has been relocated (away from the vertical curve on Witte Road) to a location that meets minimum entering sight distance standards.

Comment #8 *Pages 17-19, Page Numbering to be Updated: The page numbers after Page 16 are not correct and should be updated.*

TENW Response:

Comment noted. The page numbering has been fixed in the updated TIA.

Comment #9 *Page 18, Parking Evaluation: The parking supply and demand should be summarized for an average weekday and for the holiday season. The information should demonstrate that the proposed parking supply is sufficient for peak season parking demand.*

TENW Response:

Parking on the site is provided to accommodate parking during the peak holiday season. During the 11 months of non-peak season, on-site parking demand is expected to be less than the planned parking supply. The Transportation Management Plan elements are intended to help minimize peak holiday season parking demand to ensure no off-site parking spillover.

Comment #10 *Page 18, Traffic Management Plan (TMP): A TMP should be identified as a mitigation item to assist the City in managing additional holiday season trips. The TMP should identify what additional strategies that the Applicant may be required to implement to reduce traffic impacts to the surrounding street system and neighborhoods during the holiday season. The TMP should also address any potential off-site parking issues.*

TENW Response:

The updated TIA includes the proposed elements of the Traffic Management Plan to manage traffic and parking impacts during the peak holiday season. It is anticipated that the TMP will be a required mitigation item in the MDNS for the project.

If you have any questions regarding the information presented in this memo, please call me at (206) 390-7253 or email me at spenser@tenw.com.

cc: Brian Mattson – Panattoni Development Company, Inc

Jeff Schramm – TENW Principal

Attachment

ATTACHMENT A

Maple Valley Logistics Project Traffic Study Comments (August 5, 2020)

transpogroup
WHAT TRANSPORTATION CAN BE.

TG: 15516.00 Task 29

August 5, 2020

Mr. Steven Chen
City Engineer
City of Maple Valley
22017 SE Wax Road, Suite 200
Maple Valley, WA 98038

SUBJECT: PWE 1810-001 MAPLE VALLEY LOGISTICS PROJECT TRANSPORTATION IMPACT ANALYSIS REVIEW COMMENTS

Dear Mr. Chen:

We have completed our independent peer review of the July 21, 2020 Transportation Impact Analysis for the Maple Valley Logistics project prepared by TENW. The TIA evaluated the proposed project located on the southeast corner of SE 231st Street and Witte Road SE which includes a 112,104 square foot (SF) high-cube fulfillment center warehouse on a site that is currently vacant.

The Applicant should provide an updated TIA to address the following comments.

Page 7 Trip Generation for Peak Season. The TIA stated that during peak holiday season, trip generation could be approximately three to five times greater than an average weekday. Due to the larger than expected increase in traffic for a sustained period of 30 to 45 days during the holiday period, a sensitivity test should be performed for all intersection locations that are expected to operate at LOS D or worse under the With Project scenario. The sensitivity test should evaluate intersection operations for a holiday period to understand potential impacts with and without the SE 231st Street extension.

Page 7 Trip Distribution. We have questions about the assumed trip distribution. Is a service area boundary map available to provide to support the trip distribution assumptions? For example, we question the 20% assigned to SR 169 to/from the north, and feel that should likely be lower. Additionally, the amount of trips headed to/from the south would likely be a little higher given the higher number of residential and commercial land uses to the south for which the facility is likely to serve. We recommend 35% be assigned to SR 169 to/from the south. With those changes, the general distribution patterns would be more similar to the City's travel demand model.

Pages 7 and 8 Trip Assignment. We are concerned about the trip assignment differences between the with and without 231st Street Extension scenarios. With the SE 231st Street Extension in place, we believe that more trips should be assigned to the new street connection that are headed to/from the south. For example, in Figure 4 for intersection #3, there are still 14 trips assumed to make a westbound left from Witte Road. More explanation or analysis should be provided to support the trip assignments with the new SE 231st Street Extension. We suggest that a higher number of project trips be assigned to the new street extension that are headed to/from the south.

Page 15 Traffic Operations Analysis. Because of the expected LOS deficiencies at the SR 169 / Witte Road intersection during the PM peak hour, an AM analysis with and without the SE 231st Street extension should be conducted for that intersection location. We can provide AM traffic counts for use in the analysis. A

background growth rate can be applied to the AM counts based on the derived growth rate of the PM peak hour forecast.

Page 15 Vehicle Queuing and Progression. A vehicle queuing and signal progression analysis along SR 169 needs to be analyzed and summarized in detail as was documented in our email describing the scope of the traffic study. The analysis should note where queues spillback into adjoining intersections, where queues exceed available storage lengths or block driveways, and how the additional project trips may impact the analysis. This may require the use of Sim Traffic to complete the evaluation. The information should summarize vehicle queue lengths, and LOS and delay by approach or critical movement.

Page 16 Sight Distance Assessment. A design speed of 5 MPH over the posted speed limit was used for sight distance analyses. The City's Public Works Road Standard states that design speed should be 10 mph over the posted speed limit for arterials. The sight distance analysis should be updated to reflect the City's adopted standard.

Page 17 Entering Sight Distance. The entering sight distance analysis for the access driveways on Witte Road was shown not to meet the City's Entering Sight Distance Standards looking to the west due to the vertical curve. The TIA should be updated to identify mitigation for resolving the sight distance deficiency.

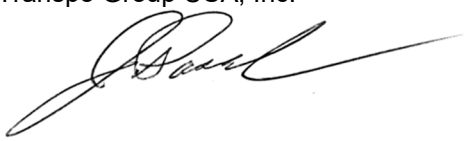
Pages 17-19 Page Numbering to be Updated. The page numbers after Page 16 are not correct and should be updated.

Page 18 Parking Evaluation. The parking supply and demand should be summarized for an average weekday and for the holiday season. The information should demonstrate that the proposed parking supply is sufficient for peak season parking demand.

Page 18 Traffic Management Plan (TMP). A TMP should be identified as a mitigation item to assist the City in managing additional holiday season trips. The TMP should identify what additional strategies that the Applicant may be required to implement to reduce traffic impacts to the surrounding street system and neighborhoods during the holiday season. The TMP should also address any potential off-site parking issues.

Thank you for the opportunity to assist in this review. Please do not hesitate to contact me at 425.821.3665 should you have any questions about our comments.

Sincerely,
Transpo Group USA, Inc.



Jon Pascal, PE, PTOE
Principal

M:\15\15516.00 - Maple Valley Transportation On-Call 2016\Task 29 - R&H Mining Concurrency\June 2020 Proposal\Maple Valley Logistics Project Traffic Study Comments.docx